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ABSTRACT

Work-based learning (WBL) includes a range of activities that extend beyond traditional cooperative education, such as job shadowing, service learning, internships, and apprenticeships--all of which provide career and technical education (CTE) students with valuable experience in the world of work. Several issues are involved in developing meaningful worksite learning experiences. Employer recruitment and commitment are crucial. High-quality and effective partnerships with employers have the following features: explicit learning outcomes, formal assessment processes, identification of standards, application of appropriate quality assurance and enhancement processes, and recognition through the awarding of credit or certification. Quality of the teaching staff is another issue. CTE teachers should be prepared to facilitate learning and be effective coaches and mentors by engaging in their own work-based experiences. WBL has been shown to facilitate workplace preparation; however, outcomes related to academic achievement are less clear. Questions used to encourage reflection in collaborative learning programs may help educators find ways to document student learning, not just outcomes related to retention, completion, and placement. Work-based learning helps students to integrate knowledge and experience and gain a broad perspective of the learning and skill development that is required to make successful transitions from school to the workplace or further education. (Contains 15 references.) (SK)

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CTE and Work-Based Learning

by Bettina Lankard Brown

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Work-based learning represents the integration of workplace experiences and career and technical education (CTE) curriculum. It involves students in the construction of knowledge by engaging them in authentic tasks of the workplace that "create a context for creative decision making in uncertain situations" (Harnish and Wilke-Schnaufer 1998, p. 22). It engages students in reflective practices that help them develop both personally and professionally (Kinman and Kinman 1997).

Work-based learning (WBL) includes a range of activities that extend beyond traditional cooperative education, such as job shadowing, service learning, internships, and apprenticeships—all of which provide CTE students with valuable experience in the world of work. This Digest reviews the approaches used to provide work-based learning, issues involved in structuring meaningful worksite learning experiences, and benefits that CTE students realize through participation in those experiences.

Approaches to Work-Based Learning

Job shadowing is a work-based learning approach that is used primarily in middle school and in the early high school years. It involves students in the observation of people in occupations that are personally interesting to them and exposes them to the culture of the organization. Job shadowing can take place in a single day, in a portion of a day, or over a period of several days (Gray and Albrecht 1999).

Service learning involves students in organized academic and practical activities designed to meet the needs of their communities. Service learning emphasizes each person's potential to effect positive changes in the community (Gray and Albrecht 1999) and generates opportunities for the simultaneous development of technical, interpretive, and critical skills (Wagner, Childs, and Houlbrook 2001).

Internships represent a school-approved program through which students learn about an occupation or industry by working for an employer over a specified period of time. They afford students both paid and nonpaid work experience options and are structured to reflect the work-based programs of which they are a part. To realize successful student outcomes, internship experiences must be well structured and well integrated with the school curriculum and culminate in products or services that demonstrate learning.

Apprenticeship programs combine academic and technical classroom instruction with workplace learning. Apprenticeships are long-term arrangements that typically span a school year and are offered primarily to juniors and seniors in high school and adult learners in postsecondary institutions. Apprentices follow an approved curriculum that facilitates the mastery of competencies identified by industry and education (Gray and Albrecht 1999).

Issues Involved in Successful WBL Experiences

Employer Recruitment and Commitment

"The effectiveness of work-based learning is directly related to the quality and effectiveness of the partnership and its ability to deliver the following five key educational criteria" (Smith and Betts 2000, p. 596):

- Explicit learning outcomes
- Formal assessment processes
- Identification and delivery of standards
- Application of appropriate quality assurance and enhancement processes
- Recognition through the awarding of credit or certification

Employers who are required to deliver on these criteria must be able to devote time to the planning and review of on-the-job learning, assume clearly defined responsibilities related to their roles as trainers or supervisors, ensure that appropriate resources are available to support the program, and satisfy the needs of their learners while ensuring that they do not conflict with those of their employees (Taylor 2001). These responsibilities may seem overwhelming to potential business partners, but the following guidelines may help employers realize benefits from participating in work-based learning (ibid., p. 7):

- Provide input to educators on planning the learning program so that the resulting programs are in tune with business needs.
- Work with training providers to ensure that learners have prior knowledge of the job and are equipped with essential skills from the start.
- Outline the benefits that practicing supervision, guidance, and mentoring skills can afford employees who must use these skills with students in internships or apprenticeships.
- Provide advice on health and safety and equity legislation that has implications for work-based learning.

Quality of Teaching Staff

A constructivist approach to teaching and learning requires teachers to be facilitators, to provide guidance to students as they strive to construct their own knowledge while engaging in active learning experiences. Serving as a facilitator—coaching students, giving advice, and demonstrating procedures—requires that teachers acquire new skills to supplement those required for traditional instruction. One of the ways in which CTE educators can upgrade their skills so as to be effective mentors and coaches is to engage in work-based experiences of their own. Externships, a term frequently used to describe teacher internships, can help teachers make their instruction more relevant to CTE education by affording them (Luft 1999)—

- heightened knowledge of jobs, career fields, and job opportunities in the community;
- better understanding of industry requirements;
- opportunities to form strong partnerships with local businesses;
- awareness of new equipment and technologies used in the occupation; and
- increased credibility with students by incorporating real problems encountered in the workplace into their classroom instruction.

Evidence of Program Effectiveness

One of the desired outcomes of work-based learning is workplace readiness—the development of work-related skills and knowledge that evolve from exposure to work in selected occupations. A study of factors thought to facilitate readiness for the transition from school to work revealed that opportunities for WBL and exploration greatly facilitate work readiness (Phillips et al. 2002). By introducing real-life experiences into the learning process, work-based learning encourages students to explore careers in greater depth and to develop critical understanding of the work environment (Harnish and Wilke-Schnaufer 1998; Wagner et al. 2001). Opportunities for teamwork, exposure to

organizational practices, and real-world problem solving all contribute to vocational achievement. Studies show that students who participate in work-based learning have greater attendance and are less likely to drop out of school, keeping the options of college and postsecondary education open to them (Hughes, Bailey, and Mechur 2001).

Less clear are outcomes that support work-based learning as a strategy for academic achievement. Studies of academic outcomes have mixed results, with some showing little to no effect on academic achievement. Results of a study of 200 students who participated in the Cornell Youth Apprenticeship Demonstration Project showed that although students who participated in the program did gain job-related skills and knowledge, the program had no effect on their academic achievement (Hughes, Moore, and Bailey 1999). Internships in the medical field tend to do a better job of linking internships with academic content. However, most internships fail to include much testing and exploration of school-based knowledge (ibid.).

To be able to secure commitment to and support of WBL from all stakeholders, evidence of program effectiveness as reflected through student outcomes must be obtained. This information, however difficult to pinpoint, is needed to inform curriculum design and learner-centered instruction (Bragg 2002). The following questions used to encourage reflection in collaborative learning programs may help educators find ways to document student learning, not just outcomes related to retention, completion, and placement (Coll et al. 2002; Maclaren and Marshall 1998; Stasz and Stern 1998):

- What is the purpose of the work-based learning experience, e.g., technical competence, professional artistry or both?
- What types of tasks are students to perform and in what social context are they to be accomplished?
- What are the objectives for work placements?
- What training philosophy and practices will guide work-based learning?
- What are the anticipated learning outcomes?
- What are the assessment criteria and what evidence of learning is to be obtained?

Benefits of Work-Based Learning

Work-based learning provides personal, educational, and career-related benefits to learners as well as to employees in the businesses who participate in these programs (Taylor 2001). Engagement in their own learning through personal involvement in the real-life activities at the worksite, resilience developed by learning to work independently and with others to solve problems that have a number of viable solutions, and success in applying academic and technical knowledge in the workplace serve to increase student self-confidence and motivate them to pursue learning (Luft 1999; Taylor 2001). Strong partnerships with business and industry enable students to learn about careers and the workplace and gain job-related skills. They help students become personally aware of the standards that employers expect and lead them to reflect on the in-school learning that complements the achievement of those standards.

Conclusion

Work-based learning helps students to integrate knowledge and experience to gain a broad perspective of the learning and skill development that is required to make successful transitions from school to the workplace or further education. It is "strongest in consortia that deliberately nurture out-of-the-box thinking about curriculum change, including recognizing that learning can take place anywhere and at any time" (Bragg 2000, p. 16). "The highest quality work-based learning programs provide a variety of options, ranging from job shadowing to youth apprenticeships and they integrate these experiences carefully with traditional school based learning" (ibid.).

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